



**BUFFALO RIDGE SUBSTATION TO WHITE SUBSTATION  
115 kV TRANSMISSION LINE  
PROJECT INFORMATION SHEET**

Xcel Energy is proposing a new 115-kilovolt (kV) line from the Buffalo Ridge Substation located southeast of Lake Benton in Lincoln County in Minnesota, to White Substation located north east of Brookings in eastern South Dakota. There will also be a new substation (called Yankee) located about midway along the new line. This project will support the development of wind energy in southwestern Minnesota and eastern South Dakota.

Project Need

These facilities are needed to help support the development of wind energy in SW Minnesota and SE South Dakota. The existing electric transmission system is incapable of supporting additional wind generation development in this area. The Minnesota Public Utilities Commission granted a Certificate of Need for several transmission line projects on March 11, 2003. The facilities are part of a series of electric transmission line projects Xcel Energy will be building in southwestern Minnesota and eastern South Dakota to support wind power development.

Project Components:

*Transmission Line*

A new 115 kV transmission line about 26 miles long will be constructed. The transmission line will have a 75 foot right-of-way, although if it is parallel to a road, the right-of-way requirements will be reduced to about 43 feet. We will be using steel davit arm structures which will be about 75 feet tall. The spans between the poles will be about 400 feet. We will be using double bundled 795 ACSS conductor.

*Substations*

The existing Buffalo Ridge substation will be expanded to accommodate a new ring bus and line terminations. This work will occur on existing Xcel Energy property.

Xcel Energy also needs to add line terminations to the White Substation. The White substation is owned by the Western Area Power Administration (WAPA) and Xcel Energy is currently working with WAPA on the preliminary details of the project. All of the work will be done on WAPA's property.

We are also proposing a new Yankee substation that will be located about midway along the new line and will be talking to landowners about potential sites. We anticipate including a proposed site location for this facility in our application to the EQB. This substation will be used to connect various wind generation projects to the transmission system.

## Project Approvals

Xcel Energy must obtain permits from various government regulatory agencies before these facilities are built. Xcel Energy will soon file an application with the Minnesota Environmental Quality Board (EQB) for a Route Permit. In the application we will include our transmission line route proposal for the EQB to review along with the necessary environmental and land use information. The EQB will determine what route the line will follow and the types of structures to be used. This process is open to the public with several opportunities for comment, including scoping meetings and public hearings.

A facilities permit is not required from the SD PUC for this project if the route follows section lines, property lines, roads, highways or railroads. The preliminary routes follow these types of corridors in SD. Xcel Energy will obtain any local approvals required for this facility.

## Schedule

Xcel Energy plans to file its applications with the EQB in a few months. We will file for local approvals in South Dakota later this year. The EQB review process is expected to last about six months. Right-of-way acquisition is scheduled to begin in 2005, pending state approvals, and construction is scheduled for the Fall of 2005 through the Fall of 2006.

## Public Input

Xcel Energy welcomes your comments. We will hold open houses to introduce the proposed facilities to the public and to gather input from landowners. Issues that can be addressed include the proposed routes, substation locations, right-of-way and transmission line design. There will be additional meetings and opportunities for your input as this project moves forward in the regulatory review process.

## Contact Information:

For more information on these projects, please call the Siting & Land Rights department at Xcel Energy at 1-800-238-7968 and someone will contact you. Or you can email Pam Rasmussen at [pamela.jo.rasmussen@xcelenergy.com](mailto:pamela.jo.rasmussen@xcelenergy.com). You can also visit Xcel Energy's web site for more information on the project. Go to [www.xcelenergy.com](http://www.xcelenergy.com), click on Home, About Energy, Transmission Projects.

Xcel Energy is a major U.S. electricity and natural gas company, with annual revenues of \$8 billion. Based in Minneapolis, Minn., Xcel Energy operates in 11 Western and Midwestern states. The company provides a comprehensive portfolio of energy-related products and services to 3.3 million electricity customers and 1.8 million natural gas customers. In terms of customers, Xcel Energy is the fourth-largest combination natural gas and electricity company in the nation.



## **Buffalo Ridge to White 115 kV Transmission Line Project**

### **Questions and Answers**

#### **Why is this project needed?**

This project is needed to support the area's growing electricity generation industry – to get the area's newest “crop to market.” Currently there are about 450 wind turbines along the Buffalo Ridge in Southwestern Minnesota, representing nearly 300 megawatts of generation capacity. And there's the potential to significantly increase the current wind power output from this region over the next 10 years. However, the power lines carrying this electricity were designed and built decades ago and are at their limit. Northern States Power Company-Minnesota, doing business as Xcel Energy, proposes to invest as much as \$160 million in transmission improvements to support the development of additional wind power and other electric generation in Southwestern Minnesota.

On March 11, 2003, the Minnesota Public Utilities Commission issued an order granting a Certificate of Need for the project. The next step is for Xcel Energy to acquire the rest of the route-related permits required to constructing the facilities. We need a route permit from the Minnesota Environmental Quality Board (EQB) before we can begin design of the project. We may also need a local permit for the line in South Dakota. Since we are following roads and property lines in South Dakota, we do not need to secure a permit from the South Dakota Public Service Commission.

#### **When will the line be built?**

The EQB routing process is expected to take a little over 6 months from the date of our filing, which is expected to occur by June of this year. The South Dakota process should take less time, but we will start it in time for it to be completed about the time the EQB process is done. We expect the transmission line construction to begin in the Fall of 2005. The substation and transmission line work should be done by the Fall of 2006.

#### **Who will own the line?**

Xcel Energy will build and own the transmission line and substation.

#### **Where will the route for this project be located?**

We have proposed a preliminary route for you to review and provide comments. In Minnesota, the EQB will follow their regulatory process to determine the final route for the line based on information Xcel Energy provides in its application, as well as information supplied by other interested parties.

When siting transmission lines, there is a strong preference for routes to follow existing transmission lines or other major corridors, such roads. The EQB will also factor input from property owners, agencies and community residents into their final decision.

**What can landowners expect in the form of compensation if the final route for one of the transmission line projects is on their land?**

Xcel Energy will provide fair compensation in the form of easement payments to property owners who host power lines. We will work directly with property owners to address their concerns. Property owners may continue to use the land around transmission structures as long as it doesn't interfere with the safe operation of the facility. We have additional handouts providing more detailed right-of-way information and a description of how the landowner contact process works.

**Will the new lines be safe?**

Yes. Every effort is made to ensure safety in construction, operation and maintenance of transmission lines. Lines and structures are designed to withstand extreme weather conditions. Protective devices at line terminals stop the flow of electricity under abnormal operating circumstances. Utility practices meet or exceed standards set by the national electric safety codes.

**What about EMF?**

Electric and magnetic fields, called EMF for short, are created by anything that conducts electricity, including transmission lines, household appliances and business equipment. These fields are strongest closest to their source, so the farther you are away from the source, the lower the strength of the field. Decades of scientific and medial research, reviewed by national and international expert panels and government agencies, have found no convincing evidence of adverse impacts to human health from EMF. We would be happy to provide more detailed background information concerning the question of health effects associated with magnetic fields if you wish. We will also provide information on this issue to the EQB in our application.

**Who do I contact for more information this project?**

Contact Xcel Energy's Siting & Land Rights Department at 1-800-238-7968. Leave a message and someone will get back to you to answer your questions. Or you can e-mail Pam Rasmussen at [Pamela.jo.Rasmussen@xcelenergy.com](mailto:Pamela.jo.Rasmussen@xcelenergy.com). You also can find more information on our Web site at [www.xcelenergy.com](http://www.xcelenergy.com). Go to Home then About Energy and Click on Transmission Projects.



## **Buffalo Ridge to White 115 kV Transmission Line Project Yankee Substation**

### **COMMONLY ASKED QUESTIONS REGARDING TRANSMISSION LINE RIGHT-OF-WAYS AND EASEMENTS**

This project required a Certificate of Need from the Minnesota Public Utilities Commission (MPUC) and a Route Permit from the Minnesota Environmental Quality Board (MEQB). In addition, the Split Rock to Lakefield Junction 345 kV transmission line requires a Facilities Permit from the South Dakota Public Utilities Commission (SDPUC). The MPUC issued a Certificate of Need order to Xcel Energy on March 11, 2003. Xcel Energy is now pursuing the Route Permit from the MEQB and a local permit from the SDPUC. Once the routes are approved for the transmission line and the substation location, Xcel Energy will then pursue construction of the facility. In order to build the lines, we will need to acquire property easements for the transmission line right-of-way (ROW).

#### **1. WHAT IS AN EASEMENT?**

An easement is defined as a permanent land right acquired by a person or party to use the land or property of another for a special or particular purpose. Landowners are paid a fair price for the easement and can continue to use the land for most uses, such as agriculture.

#### **2. WHAT IS THE DIFFERENCE BETWEEN A RIGHT-OF-WAY AND AN EASEMENT?**

These terms are used interchangeably but an easement is the permanent land right and the ROW is the land area on which the facilities are located.

#### **3. HOW WIDE WILL THE RIGHT-OF-WAY NEED TO BE FOR THE PROPOSED TRANSMISSION LINES?**

For the 115 kV transmission line, the ROW will be 75 feet in width (37.5 feet on each side of the centerline of the transmission line). Exceptions to this will be where the transmission line route changes direction and turns significantly, which may require down guys and anchors outside the 75 foot strip or a larger self-supporting steel structure. In addition, if the route follows a road, the ROW requirements for private property will be about 45 feet with some of the easement overhanging the road.

#### **4. WHAT EASEMENT RIGHTS WILL BE NEEDED FOR THE CONSTRUCTION OF THE POWER LINE?**

Xcel Energy will require an easement that allows for surveying, construction, operation and maintenance of a transmission line across a defined strip of the landowner's property. The easement will be in the name of the Xcel Energy operating company in this state, which is Northern States Power Company-Minnesota.

**5. WHAT ACTIVITIES ARE ALLOWED WITHIN THE EASEMENT AREA?**

Land within the ROW may be used for any purpose that does not interfere with the construction or operation of the transmission line. In agricultural areas, the land may be used for crop production and pasture. In areas where the land will be developed, streets, lawn extensions, underground utilities, and curb and gutters, etc., may cross the ROW with permission from the utility.

**6. WHAT ARE THE MAIN BUILDING AND PLANTING RESTRICTIONS IN THE EASEMENT?**

The primary building and planting restrictions are: 1) prohibiting the construction of buildings or structures within the ROW strip, and 2) prohibiting the planting of tall growing species of trees in the ROW strip.

**7. WHY CAN'T BUILDINGS BE PLACED IN THE RIGHT-OF-WAY?**

If a building or structure located within the ROW were to catch fire, it could burn into the power line and take the line out of service for an extended period. When a power line is out of service it affects the ability of thousands of people to heat and light their homes and businesses. At certain times of the year, especially during winter months, outages are not only an inconvenience; they may become life threatening. Utilities have determined that the best way to prevent the possibility of these types of outages is to restrict the placement of structures within the ROW. In addition, access to the line is required if an outage occurs. The construction of building or other structures within the ROW could hamper maintenance crews from accessing the line to make the necessary repairs.

**8. WHY DOESN'T THE UTILITY BUY A STRIP OF LAND FOR THE LINE INSTEAD OF TAKING AN EASEMENT INTEREST?**

Utilities occasionally purchase ROWs for transmission lines in fee title. However, we have found that in most cases, landowners prefer to retain the ownership of the property so that they can maintain better control over the use of the property, subject of course to the limitations of the transmission line easement. In many cases, the retention of the ownership of the ROW by the landowner provides the landowner with continued use of the property for such things as agricultural operation, yard extensions or open areas adjacent to residences. In each of these cases the property continues to contribute positively and productively to the property owner as well as the public. Utilities are simply interested in assuring that their right to operate the transmission line is protected. In most cases, adjacent uses pose no threat to the line nor do they create a hazard to the public.

## **9. HOW WILL THE PRESENCE OF A TRANSMISSION LINE ON MY PROPERTY AFFECT THE VALUE OF MY PROPERTY?**

In recent years, the utility industry and others have conducted numerous studies evaluating this issue. Specifically, is there a loss in property value caused by the proximity to power lines? All of the studies that we have reviewed to date—including regional and national studies that have been completed by competent, certified appraisers using valid appraisal analyses methods—have shown no significant loss in value as a result of the transmission line being in near proximity to the property. These studies generally use paired sale analysis, which compares properties that have power lines located on them or that abut powerlines, with those properties where no power lines are present. These properties are also compared on the basis of similar size, similar features and amenities.

Overall the large body of studies has not supported the claim that property values are significantly lowered as a result of proximity adjacent to a transmission line. In fact, some studies have shown that in some relatively exclusive subdivisions, lots that have been strategically designed to abut power line ROWs have sold first--and in some cases, for more money than those lots located away from the power line. These studies have indicated that in some cases properties abutting a power line have sold for nearly 8 percent above the asking price for the other lots. Purchasers indicated that they were willing to pay more for those lots because of the buffer created by the extra green space associated with the power line ROW. It is important for landowners to remember that every property is different and that the final determination of the value of their property and how it is affected by the power line will be addressed by the appraiser in the individual analysis of their property.

## **10. Why don't I get paid as much for a transmission line easement as landowners are receiving for allowing wind turbines on their property?**

Wind developers represent entrepreneurial enterprises. And unlike an investor owned utility, like Xcel Energy, they are not regulated by stator federal agencies in the expenditures they make or the rates they charge. As entrepreneurs, they assume more investment risk, but also have the potential to achieve higher rates of return on their investments. Wind farm developers do not fall in the category of essential services and subsequently do not have the right of eminent domain, so they have the ability to pay landowners in excess of fair market value for rights to their property. On the other hand, Xcel Energy is a regulated company with its rates and return on equity set by state jurisdictions. Each major transmission line project Xcel Energy proposes must undergo a thorough review by state regulators where the need for the project, its cost and environmental impacts are analyzed. The project cannot proceed without these necessary state approvals. And when it comes to eminent domain laws, the rules in Minnesota and South Dakota base compensation for easements on the change in value "before and after" the easement is taken as related to fair market values. Because Xcel Energy's costs are passed on to customers, or ratepayers, it is only fair that landowners are compensated based on the property's fair market values whether the easement is acquired through negotiation or eminent domain proceedings.

In reality the power of eminent domain is not used frequently. Most of our easement payments represent at least 50%-70% of the fair market value of the impacted parcel. It should be noted that granting an easement to Xcel does not entirely restrict the landowner's use of the property. For example in agricultural areas the right of way area can still be farmed except where the transmission structures are located. In addition payments are made for access routes to the ROW (if required), impacts to ornamental trees, and other unique circumstances.

For more information on ROW issues, please contact Ron Flynn, Team Lead, Siting and Land Rights at 1-800-238-7968, extension 2433 or [ronald.f.flynn@xcelenergy.com](mailto:ronald.f.flynn@xcelenergy.com).

S:\SkyPark-SP\Wind Transmission\BuffaloRidge to White\Public Meeting Info\Handouts\ROW QA.doc  
4/22/04





RECEIVED

AUG 5 2004

HDR Engineering, Inc.

April 12, 2004

**RE: XCEL ENERGY OPEN HOUSE FOR THE BUFFALO RIDGE TO WHITE 115 kV  
TRANSMISSION LINE & YANKEE SUBSTATION**

Northern States Power Company, doing business as Xcel Energy, is planning to build a new transmission line in your area. In early 2003, the Minnesota Public Utilities Commission authorized Xcel Energy to build and upgrade a series of transmission lines in southwest Minnesota. In addition to supporting the growth of wind generation in the area, the improvements will strengthen the transmission system and provide more reliable electrical service to local communities and rural cooperative customers.

Xcel Energy is currently gathering information to assist with the routing and siting of a new 115,000-volt (115 kV) line between its Buffalo Ridge substation near Lake Benton, MN and the Western Power Administration's White substation, near Brookings, SD. We will also be siting a new substation (called Yankee) about midway along the new line that will be used to connect the various proposed wind generation projects to the transmission system. We are still gathering information before we identify the final route of the transmission line for the route permit application that will be filed with the Minnesota Environmental Quality Board (EQB) in early summer. The final route for the line will be selected by the EQB Board. We would like to talk to landowners about potential locations for the substation.

As part of the EQB application, we will file information on the proposed route and criteria we consider when selecting transmission line routes—which includes landowner input. You have been identified as a landowner who may be impacted by the project or a government official we wanted to notify about the project. Where the route parallels roads, it has not been determined which side of the road the new line will be located. In order to provide all potentially affected landowners the opportunity to review our project at this stage, we are notifying landowners on both sides of the road. At our open house, we'll have maps with preliminary routes and information on structure types, right-of-way, the permitting process and other issues of interest. We have included a general fact sheet and route map with this letter to provide you some background on the project.

You are invited to attend our meeting so we can answer your questions. If you cannot attend, please contact me at the number shown below and we will send you information or have an Xcel Energy representative arrange to speak with you at another time.

Please join us at an open house so that we can introduce this project and ourselves:

**Tuesday, April 27  
4 to 7 p.m.  
Midwest Center for Wind Energy  
2390 Lincoln County Highway 1  
Hendricks, MN**

You are welcome at anytime during the hours of the open house.

Pam Rasmussen  
Permitting Analyst  
Xcel Energy, Siting & Land Rights Department  
1-800-238-7968  
pamela.jo.rasmussen@xcelenergy.com



RECEIVED

NEWS RELEASE

AUG 5 2004

HDR Engineering, Inc.

800 Nicollet Mall, Suite 2900  
Minneapolis, MN 55402-2024

Xcel Media Representatives  
(612) 215-5300  
[www.xcelenergy.com](http://www.xcelenergy.com)

April 16, 2004

## Open House near Lake Benton on new power line

*Route information on Buffalo Ridge to White presented April 27*

MINNEAPOLIS— Xcel Energy announced today it will host an open house to provide information on one of the transmission improvements planned for Southwestern Minnesota and Eastern South Dakota, aimed at better serving the area's growing wind generation industry.

The open house will take place from 4 p.m. to 7 p.m. on Tuesday, April 27, at the Midwest Center for Wind Energy, 2930 Lincoln County Highway 1, Hendricks, Minn. Xcel Energy officials will be on hand to provide information on a proposed 26-mile line linking the company's Buffalo Ridge substation near Lake Benton, Minn., with the Western Power Administration's White substation near Brookings, S.D.

Route options for the 115-kilovolt line will be discussed, along with proposed site locations for a new substation (to be named Yankee), which will be located near the midpoint of the transmission line's route. The meeting is only the first of several different opportunities for the public to provide input on the project.

The Minnesota Public Utilities Commission already approved a certificate of need for the improvements, and the open house is set up to provide information on the project and to discuss the routing process that will be done once an application is filed with the Minnesota Environmental Quality Board. Xcel Energy officials will also be working with local communities in South Dakota to get the appropriate permits needed there. Those permitting agencies will select the final locations for the improvements.

The new line and substation will carry electricity generated on the Buffalo Ridge to the larger grid that serves Xcel Energy customers, and is part of a \$160 million investment in infrastructure that will help the wind energy industry grow. "Our system is at capacity right now, and the PUC agrees the improvements are needed," said Xcel Energy Permitting Analyst Pam Rasmussen.

- more -

Xcel Energy officials recently sent letters to property owners along the possible routes, providing information and offering to answer any questions they may have. "These improvements will be located in the heart of Minnesota's wind generation country," Rasmussen said. "Xcel Energy is committed to working with area residents to keep them informed on the project and how they can participate in the routing process."

At the open house there will be maps with preliminary routes and information on structure types, right-of-way, construction practices, the permitting process and other issues of interest. Refreshments will be served, and the public is welcome at anytime during the hours of the open house.

###

**Route Location Map  
Buffalo Ridge to White  
115 kV Transmission Line  
Xcel Energy  
Windfarm Transmission  
Improvement Projects**

**Legend**

Existing Substations

**Potential Route Segments**

- NS2
- NS3
- S1
- S1a
- S1b
- S1c
- S1e
- S1f
- S1g

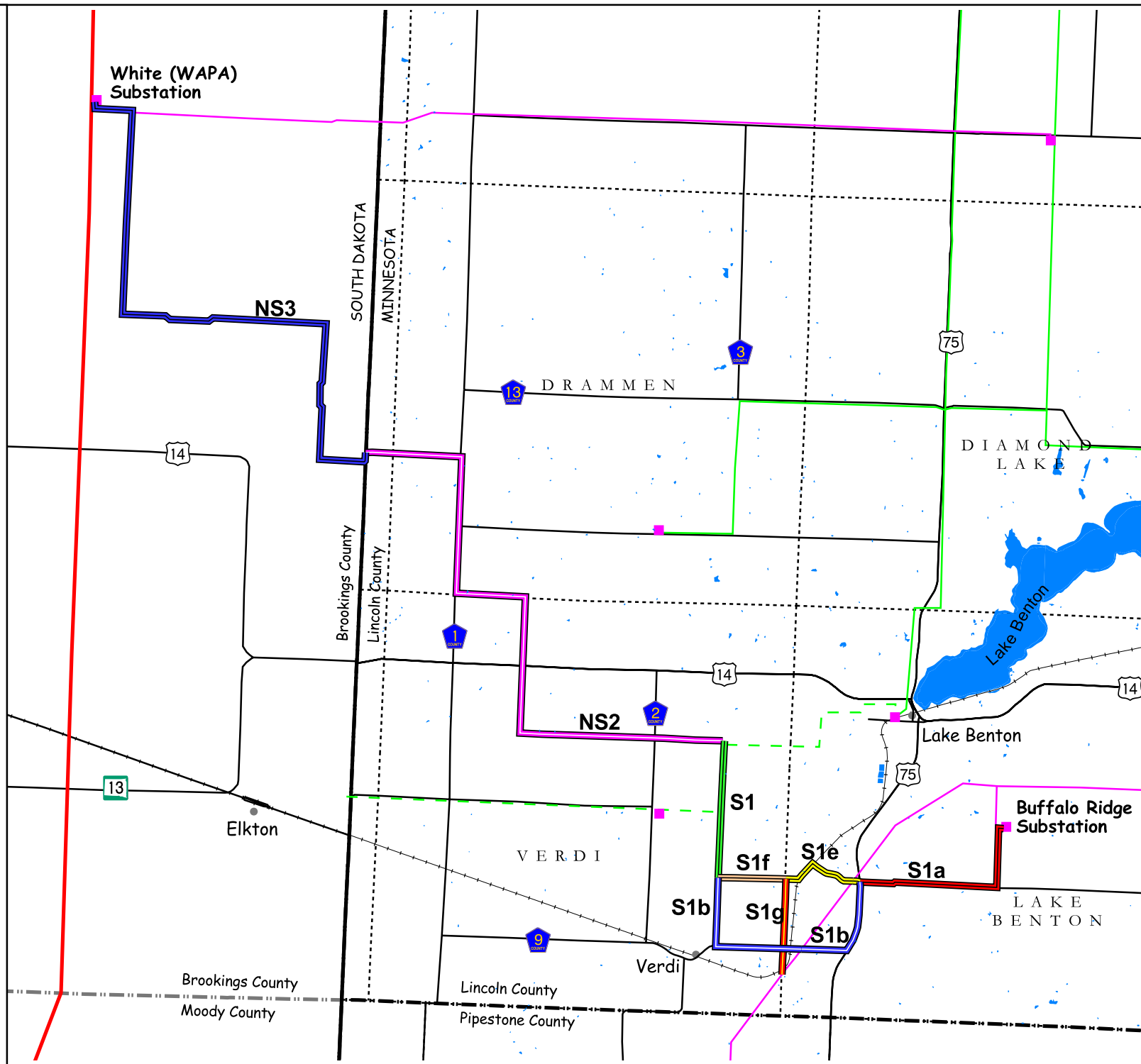
**Existing Transmission Lines**

- 41.6 kV
- 69 kV
- 115 kV
- 345

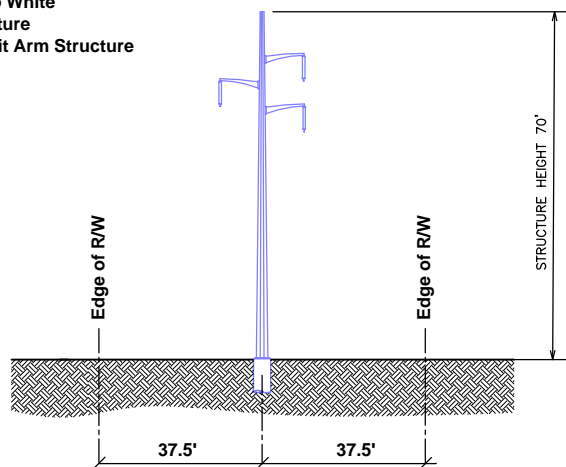


0 1 2 Miles

1" = 2 miles

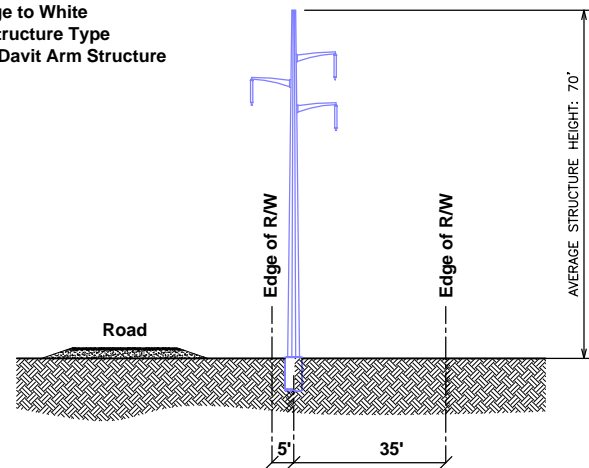


Xcel Energy  
Buffalo Ridge to White  
Proposed Structure  
New 115KV Davit Arm Structure



75' Total Right-of-Way Width  
Cross-Country  
400'-500' Span

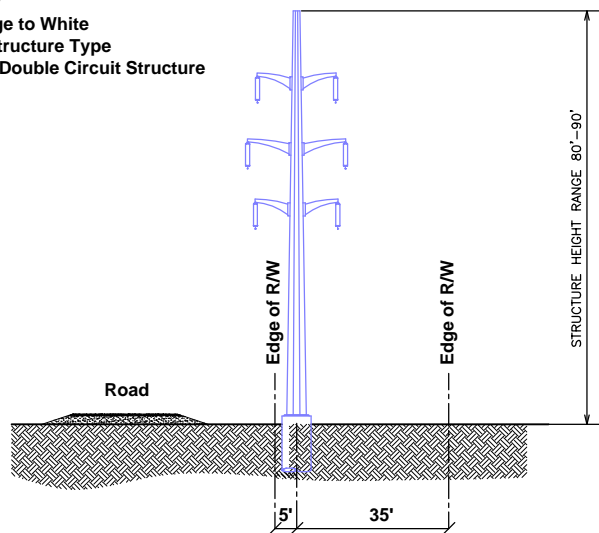
Xcel Energy  
Buffalo Ridge to White  
Proposed Structure Type  
New 115KV Davit Arm Structure



Road Right-of-Way

40' Total Right-of-Way Width  
Parallel to Road  
400'-500' Span

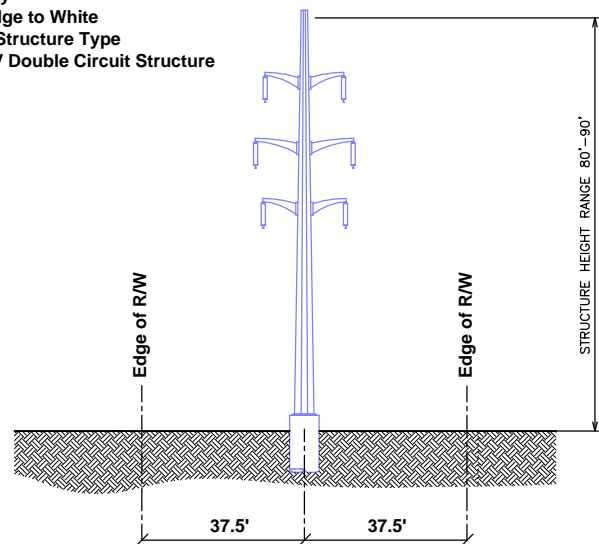
Xcel Energy  
Buffalo Ridge to White  
Proposed Structure Type  
New 115KV Double Circuit Structure



Road Right-of-Way

40' Total Right-of-Way Width  
(Parallel to Road)  
400'-500' Span

Xcel Energy  
Buffalo Ridge to White  
Proposed Structure Type  
New 115KV Double Circuit Structure



75' Total Right-of-Way Width  
Cross-Country  
400'-500' Span